

## REMARKS

The present amendment is submitted in response to the Office Action dated July 10, 2008, which set a three-month period for response, making a response due by October 10, 2008.

Claims 1-5 and 7-34 are pending in this application.

In the Office Action, claims 1-21 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 2003/104773 A1 to Krondorfer. Claim 1 was rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claim 2 of copending application 10/578,201.

With regard to the double-patenting rejection, the Applicants intend to file a terminal disclaimer with regard to copending application 10/578,201.

In the present amendment, new claims 22 through 34 have been added. Support for the new claims with reference to the original specification is as follows: claim 22, page 5, line 6; claim 23, Fig. 4; claim 24, page 4, line 28 and Fig. 4; claim 25, page 5, lines 2-3; claim 26, Fig. 4; claim 27, page 4, lines 27-30 and Fig. 4; claim 28, page 4, line 29 and Fig. 4; claim 29, Fig. 4; claim 30, page 4, line 27 through page 5, line 1 and Fig. 4; claim 31, Fig. 4; claim 32, Fig. 4; claim 33 combines claim 1 with the features of claim 18, 22, 23, and 26; and claim 34 combines the features of claims 1, 16, 18, 24, 25, 27, 29, and 30.

In addition, a translation error has been corrected in the specification on page 4 at line 30.

The Applicants respectfully submit that the pending and new claims are patentable over the cited references.

Looking first at independent claims 1 and 11, Krondorfer discloses a device for attaching an insertion tool 18 to a receiving device 12, 14, 16 of an angular grinder 10. In this connection, the device includes a first attachment means 46, 48, 50 formed in a hub 52, the attachment means formed as a circular recess (Krondorfer, page 3, section 48 and Fig. 3). A second attachment element 64, 66, 68 is provided which is formed as a long slot. The long slot includes a narrow region 70, 72, 74 and a round region 58, 60, 62 formed as a bore. The narrow region 70, 72, 74 serves as a holding region of an attachment element 40, 42 (Krondorfer, page 3, section 48, Fig. 3). Krondorfer, however, offers the disadvantage that a mounting error is possible when mounting the insertion tool 18 to the receiving device.

The structure of the second attachment means according to the present invention, in contrast, as two long slots that partially abut each other along their sides offers the advantage that a laterally reversed mounting of the insertion tool 12 to the receiving device can be avoided in a constructively simple manner. In this manner, greater safety for the operator can be obtained, since falling off of the insertion tool 12 based on a mounting error can be avoided with greater certainty.

In contrast, the device of Krondorfer offers no security against a mounting error of the insertion tool 18. In addition, an attachment element 306 can get caught or jammed with a release region of the second attachment element 314,

which has a beveled region 316. The risk therefore exists for the operator, in particular an operator with little experience in operating an angle grinding tool 10, of rotating the insertion tool 18 counter to a mounting direction and thereby causing an apparent attachment between the insertion tool 18 and the angle grinding tool 10, which however, leads during operation of the angle grinder 10 to an unwanted breaking and/or lifting off of the insertion tool 18, which can injure the operator.

By means of the present invention, a mounting error of insertion tools 12 on an angle grinder 2 is avoided advantageously, since here the second attachment means is formed by two long slots, which abut each other along their long sides partially, so that a release region 66 can be achieved which extends over a maximum radial extension of both long slots or holes. In addition, the releasing region 66 has an additional third region 70, which likewise is included by the long holes or slots and prevents an undesired mounting counter to the mounting direction. A force and/or positive locking with an attachment element 40 of the angle grinder formed as hooks is not possible with an undesired mounting counter to the mounting direction, since a third region 70, corresponding with the attachment element 40 formed as hooks, is included by the long slots or holes and therefore no bearing surface for a possible mounting error is provided. Mounting of the insertion tool is possible ONLY in the correct operating position.

By this structure of the second attachment means 42 according to the present invention, an especially stable holding can be achieved, which can be

produced simply and cost-effectively. In addition, a system can be achieved which includes a stable and simple holding of the tool hub and a receiving device without a large number of parts (see present application, on page 1, line 26).

In contrast, the receiving device according to one embodiment of Krondorfer includes a number of individual parts, whereby the construction, the production and the assembly/mounting of the receiving device are all made more difficult and are more costly (Krondorfer, Fig. 13).

The device in Krondorfer has the disadvantage that the attachment element 40, 42 is only in contact with a small bearing surface of the holding/retaining region. Thus, the Krondorfer device can achieve only a minimal stability. Thus, the risk exists of an accidental falling off of the insertion tool 18, thereby posing a substantial safety risk for the operator (Fig. 3).

In contrast, the present invention provides a retaining region 62 based on the structure of the second attachment means with two long holes/slots, which can offer a larger contact surface of an attachment element 40 to a region 46 adjacent the opening 42. In this manner, a particularly stable holding of the tool hub 16 to the receiving device 22 is achieved, thereby leading to increased safety for an operator of the tool.

Krondorfer offers no suggestion of modifying an attachment means formed as a curved, long slot/hole with a circular bore in order to increase safety for the operator so that the practitioner would obtain an attachment means that comprises two long holes/slots that abut each other on their long sides at least partly. The present invention therefore cannot be rendered obvious by this

reference. Likewise, the embodiment shown in Figs. 13 through 16 of Krondorfer also would not lead the practitioner to the present invention.

Claims 1 and 11 are therefore not obvious over this reference.

Claim 33 defines that the two right-angled long slots are arranged displaced along a tangential direction to each other, and the second fastening means is configured as an opening a contour of the opening is formed step-like, respectively, at opposite sides of the opening. With this structure of the second fastening means, an especially sturdy holding can be achieved in a constructively simple manner, whereby in addition a higher degree of safety for the operator of the angle grinder also is achieved.

An attachment means according to the present invention has an encoding with its step-like shape, which can avoid a laterally reversed mounting of the insertion tool 12 to a receiving device in a constructively simple manner and therewith, can prevent with more certainty an unwanted falling off or lifting off of the insertion tool, thereby increasing the safety for the operator.

The structure of right-angle long holes according to the present invention offers the advantage that the opening 42 has straight edges. Accordingly, the releasing region 66 does not have any region with which the attachment element 40 possibly could hook. A force and/or positive locking with the attachment element 40 of the angle grinder 2 formed as hooks with an unwanted mounting counter to the mounting direction is NOT possible, since a third region 70 corresponding with the attachment element 40 is included by the long holes and

therefore NO bearing surface is provided for a possible mounting error. Mounting of the insertion tool is possible ONLY in the correct operating position.

In contrast, the device disclosed in Krondorfer offers no security against a mounting error of the insertion tool 18. In addition, the attachment element 306 can hook with a beveled region of the releasing region 316, so that the insertion tool 18 appears to be attached for the operator. This possible error represents a great risk for the operator during operation of the angle grinder, since the insertion tool 18 can be released and injure the operator.

Accordingly, new independent claim 33 also is not unpatentably obvious over Krondorfer.

New claim 34 includes the additional features that the insertion tool has a second attachment means formed as an opening, whereby the opening 42 includes a retaining region 62, a releasing region 66 and a third region 70. The releasing region 66 includes additionally a blocking element 76, which limits a releasing motion for releasing the insertion tool 12 from the receiving device 22. In this connection, the blocking element 76 has a stop 78 on which a bar 82 of the attachment element 40 abuts and signals the operator that the insertion tool 12 is located in a position in which it can be lifted from the receiving device 22 (specification, page 5, lines 17-22).

Limiting of the releasing motion of the insertion tool 12 is achieved according to new claim 34 by the blocking element 76 with the stop 78. With a releasing motion, a bar 82 of the attachment element 40 comes into contact with the receiving device 22 on the stop 78 or on the blocking element 76. With the

releasing motion or a rotational motion counter to the mounting direction, a mounting error can be prevented by the blocking element, since a region, corresponding to the attachment element formed as hooks, is configured for possible attachment of the releasing region and therewith of the opening, in particular the third region of the opening. Mounting of the insertion tool is possible ONLY in the correct operating position.

This enables a comfortable operability for the user, which can be achieved by the structure of the opening 42 in a constructively simple manner.

In contrast, with the structure of Krondorfer in which the attachment element 310 is formed as hooks, an overlapping of the bearing surfaces 310a of the attachment element 310 with the beveled region 316 of the recess 314 exists. Krondorfer therefore contains no suggestion that would have led the practitioner to the present invention. Claim 34 therefore also is not rendered obvious by this reference.

It is respectfully submitted that since the prior art does not suggest the desirability of the claimed invention, such art cannot establish a prima facie case of obviousness as clearly set forth in MPEP section 2143.01. Please note also that the modification proposed by the Examiner would change the principle of operation of the prior art, so that also for this reason the references are not sufficient to render the claims prima facie obvious (see the last paragraph of the aforementioned MPEP section 2143.01).

When establishing obviousness under Section 103, it is not pertinent whether the prior art device possess the functional characteristics of the claimed

invention, if the reference does not describe or suggest its structure. *In re Mills*,  
16 USPQ 2d 1430, 1432-33 (Fed. Cir. 1990).

Therefore, the application in its amended state is believed to be in  
condition for allowance. Action to this end is courteously solicited. However,  
should the Examiner have any further comments or suggestions, the  
undersigned would very much welcome a telephone call in order to discuss  
appropriate claim language that will place the application into condition for  
allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Michael J. Striker', written over the printed name.

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